of the disease. There was significant negative correlation between CARS and Z Head circumference and significant positive correlation between CARS and Z BMI. Also, significant negative correlation between the Gilliam score and Z Head circumference and positive correlation between Gillian and Z BMI.

Conclusion: There is a growth aberration in our sample of Egyptian children with ASD. Especially, a growing rate of obesity that warrant a nutritional program to be a part of the routine care of our ASD children.

Insulin resistance among hepatitis C infected thalassemic children and survivors of childhood malignancy
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Background/Aim: Hepatitis C virus appears to contribute, directly or indirectly, to the development of Insulin Resistance (IR). The presence of IR in the setting of hepatitis C infection plays a role in the progression of HCV-related liver disease and may be associated with suboptimal responses to antiviral therapy. The aim of this work was to find possible relation between the occurrence of insulin resistance in hepatitis C virus infected children who were either thalassemic or survivors of childhood malignancy.

Methods: 60 hepatitis C virus infected children (30 thalassemic and 30 childhood malignancy survivors) and 30 controls (mean age: 11.88 ± 3.43 yrs; range 3-19 yrs; male predominance: 60%) were recruited from Pediatric hematology and oncology clinics, Children’s Hospital, Ain Shams University. All underwent ALT, AST, Alkaline phosphatase, Serum Bilirubin, PT and Serum albumin, Fasting blood glucose, Fasting Insulin, Serum ferritin, HCV antibody, HCV-RNA (by PCR), Homeostasis model assessment (HOMA) of insulin resistance.

Results: There was significant difference between patients and controls as regard fasting glucose, fasting insulin (p < 0.0001), HOMA (p<0.0001), and HOMA IR (p < 0.001). There was no significant difference between male and female thalassemic patients except for serum ferritin level which was significantly higher among female patients (2450.87 ± 1990.33 versus 1023.91 ± 1453.52ng/mL (p < 0.0001)). There was positive correlation between serum ferritin among all patients with total bilirubin, platelets, ALT and ALP. There was positive correlation between fasting insulin among patients with weight and between fasting insulin and HOMA. There was no significant difference as regard the previous items between the two subgroups of patient involved in the study. HOMA IR was significantly higher among female survivors of childhood malignancy (p<0.05). HOMA IR was found normal among all controls (100%) and in 48 patients (80%), moderate HOMA IR was present in 12 patients (20%) no severe HOMA IR was present in patients enrolled in this study.

Conclusions: Hepatitis C virus appears to contribute to the development of IR among hepatitis C infected children.

Assessment of liver disease progression among survivors of childhood malignancy
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Background/Aim: Egyptian children undergoing chemotherapy are at a high risk for HCV infection due to immunosuppression and multiple blood transfusions. The aim of this prospective study was to evaluate the feasibility of liver stiffness measurement and to compare Fibroscan to AST to platelet ratio index (API) and FIB-4 (combining platelets, ALT, AST and age) in diagnosis of advanced fibrosis in adolescent cancer survivors with chronic HCV.

Methods: Fifty one cancer survivors (mean age: 13.41 ± 4.14 yrs; range 14-19 yrs; male predominance: 76.5%) with chronic HCV were prospectively recruited from the National Cancer Institute. All underwent non-invasive tests for fibrosis: Fibroscan, APRI and FIB-4 score, in addition to ALT, ALP, serum bilirubin, albumin, PT, ferritin, ultrasound and liver biopsy when necessary (n = 6).

Results: Patients were grouped according to Fibroscan liver stiffness into 2 groups; group 1: patients with fibrosis stage F0-F2 (no significant fibrosis; 80.4%) and group 2: patients with fibrosis stage F3-F4 (significant fibrosis and cirrhosis; 19.6%). There was a highly significant difference between the 2 groups regarding APRI (p = 0.001). In addition to a significant difference regarding the FIB-4 score (p = 0.03), ALT (p = 0.01) and platelet count (p = 0.01). Liver stiffness showed positive correlation with duration of chemotherapy, height, ALT, ALP, ferritin, APRI and FIB-4 (r = 0.37, 0.31, 0.28, 0.45, 0.52, 0.32 and 0.40 respectively). The AUROC curves for APRI and FIB-4 for prediction of significant fibrosis (F3-4) was 0.85 and 0.712, respectively. As far as APRI is concerned, a cut off value of 0.86 was selected for the best prediction of mild and severe fibrosis (sensitivity: 80%, specificity: 90.2%, PPV: 66.7% and NPV: 94.9%). The best predictive cut off value for FIB-4 was 0.52 (sensitivity: 70%, specificity: 85.4%, PPV: 53.8% and NPV: 92.1%). APRI was more accurate than FIB4 in detection of significant fibrosis.

Conclusions: The Results indicate that liver stiffness measurement by Fibroscan is feasible for identifying the stage of hepatic fibrosis in Pediatric cancer survivors with chronic HCV. APRI is more preferred than FIB4 in detecting significant fibrosis in resource limited countries.

Asthma biomarkers and psychological profile of asthmatic children and their caregivers; is there a link?
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Parental psychosocial status has been linked to pediatric bronchial asthma. Parental stress was found to be associated with poor pulmonary functions of their asthmatic children and increased frequency of their hospitalizations with increased
Immune globulin G4 (IgG4) level in autistic children and its correlation to disease severity and psychosocial dysfunction

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Although the exact etiology of autism spectrum disorder is still unknown, many studies have shown various immunological abnormalities in autistic children including increased levels of inflammatory mediators and a possible autoimmune phenomena. IgG4 is a univalent immunoglobulin that has been implicated in the development of allergy and is considered as a blocking antibody that is produced in response to chronic exposure of an antigen as a means of immune regulation. The current study aimed at investigating the level of immunoglobulin G4 (IgG4) level in autistic children and its correlation to disease severity and psychosocial dysfunction. Forty autistic children were enrolled and compared to 40 healthy and normally developing children of comparable age and sex. IgG4 was significantly higher in studied autistics compared to controls and was significantly positively correlated with both; the disease severity and the degree of psychosocial dysfunction, as assessed by Childhood Autism Rating Scale (CARS) and Pediatric Symptom Checklist (PSC) respectively.

Conclusion: IgG4 is considered as a potential biomarker in autistic children and its possible autoimmunity role in the formation of brain specific autoantibodies should be explored.

Functional and Survival Outcome of Egyptian Children and Adolescents With Malignant Bone Tumors: An Experience In A Setting Of Limited Health Ressource

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Objective: Evaluate outcome of paediatric malignant bone tumours at Ain Shams University, Egypt, from January 2003 to July 2016.

Methods: Retrospective data analysis about clinico-epidemiological aspects, treatment outcomes, survival analysis and musculoskeletal tumour society score (MSTS score).

Results: The study included 37 patients; 22 had Ewing sarcoma (ES) and 15 had osteosarcoma, male: female ratio 0.85:1, median ages of 11. The overall frequency was 2.3% among all cancers. There is wide range of time lag until diagnosis. Patients with ES were significantly younger than those with osteosarcoma were. Swelling was the most common presenting symptom and femur was the most common affected site. Fifteen patients fulfilled MSTS criteria; most of them had excellent MSTS, which significantly affected by type of surgery. ES patients were treated with POG#9354/CCG#7942 protocols and osteosarcoma with CCG#7921 protocol. Limb salvage was the most common type for surgical local control. Most common cause of death was relapse and infection was the most common complication of treatment. 1-year, 2-year, 3-year overall-survival of osteosarcoma were 93.3%, 40%, and 13.3% respectively and 77.3%, 40.9%, and 18.2% respectively for ES. 1-year, 2-year, 3-year event-free-survival were 80%, 40%, and 13.3% respectively and 72.7%, 22.7%, and 18.2% respectively for ES patients.

Twentieth Anniversary of the Child Psychiatry Clinic, Pediatric Department, Faculty of Medicine, Ain Shams University; Statistical report

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Ain Shams University is celebrating its 20th anniversary this year. Over 20 years, its services have been offered to 1750 cases suffering from different Pediatric mental disorders; 20% were females and 80% were males. The age of the served cases ranged between 18 months and 17 years with a mean age of 6.98±2.43 years; 28% came from rural areas while 72% came from urban areas. Among those cases, consanguinity rate was 35% and family history of neuropsychiatric disorders was reported in 22% of them. Attention deficit hyperactivity disorder was the most commonly encountered diagnosis among them (33.07%), followed by nocturnal enuresis (28%), and Autism spectrum disorder (22.5%). Other diagnoses included intellectual disability, learning disabilities, all types of child abuse, conduct disorder, anxiety and mood disorders. Many academic and awareness recreational events have been organized by our team over the past 20 years and we hope to continue our services in the upcoming years to help children and adolescents suffering from different types of Pediatric mental disorders and their caregivers to enjoy a better quality of life.